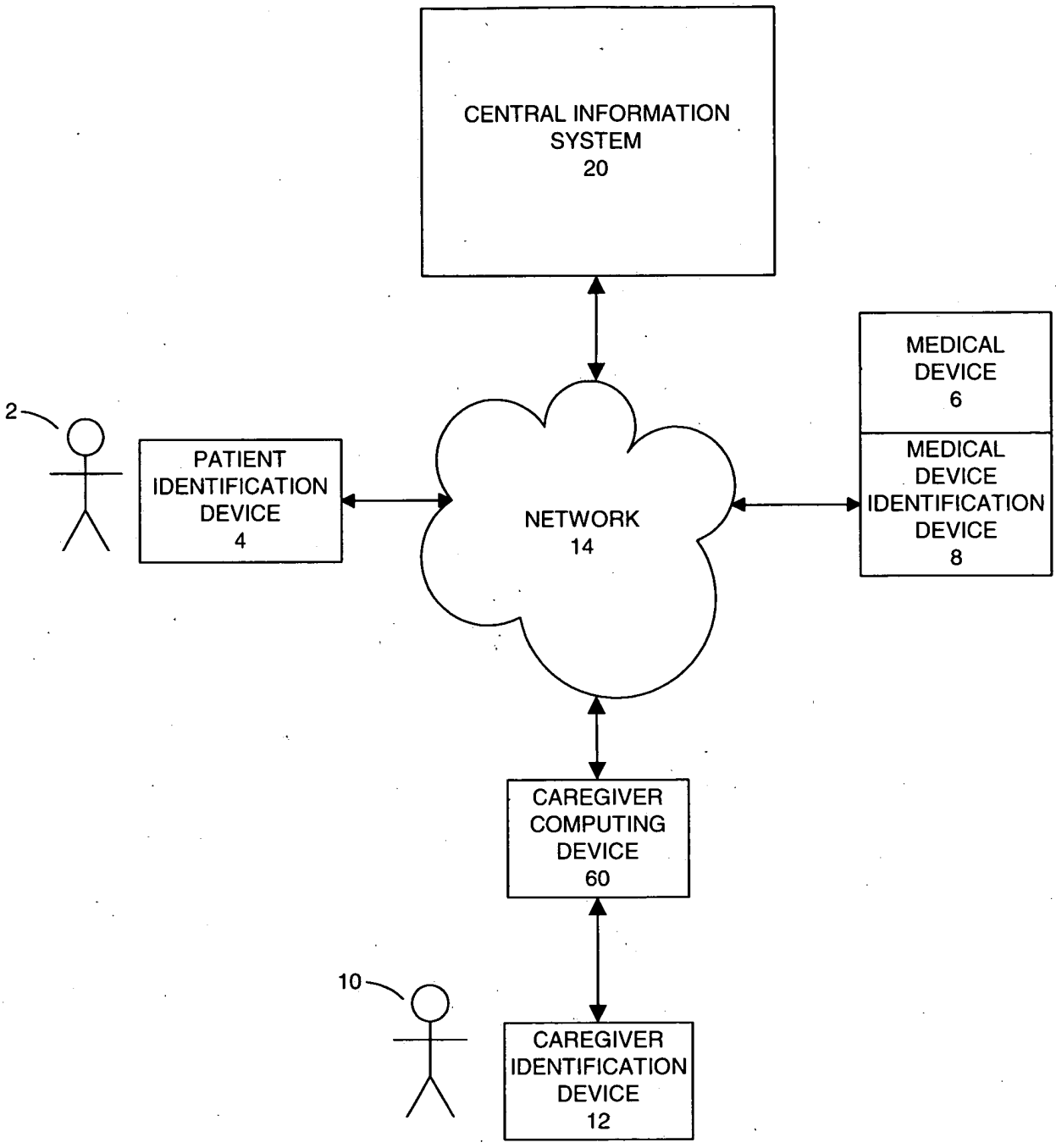
CENTRAL INFORMATION SYSTEM 20
MEDICAL DEVICE 6
MEDICAL DEVICE IDENTIFICATION DEVICE 8
2
PATIENT IDENTIFICATION DEVICE 4
NETWORK 14
CAREGIVER COMPUTING DEVICE 60
10
CAREGIVER IDENTIFICATION DEVICE 12

FIG. 1

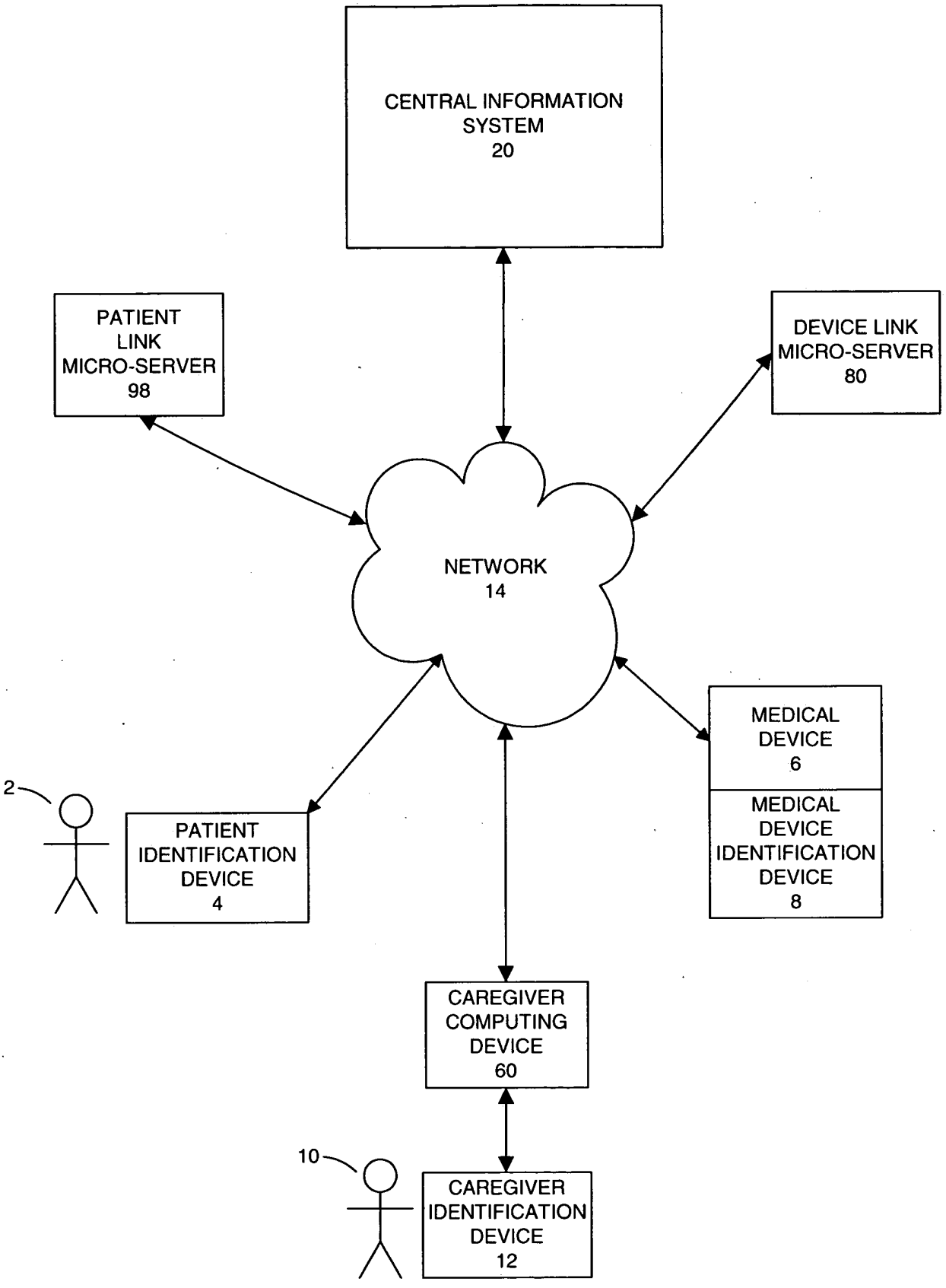
CENTRAL INFORMATION SYSTEM 20
PATIENT LINK MICRO-SERVER 98
DEVICE LINK MICRO-SERVER 80
NETWORK 14
MEDICAL DEVICE 6
MEDICAL DEVICE IDENTIFICATION DEVICE 8
2
PATIENT IDENTIFICATION DEVICE 4
CAREGIVER COMPUTING DEVICE 60
10
CAREGIVER IDENTIFICATION DEVICE 12

FIG. 2

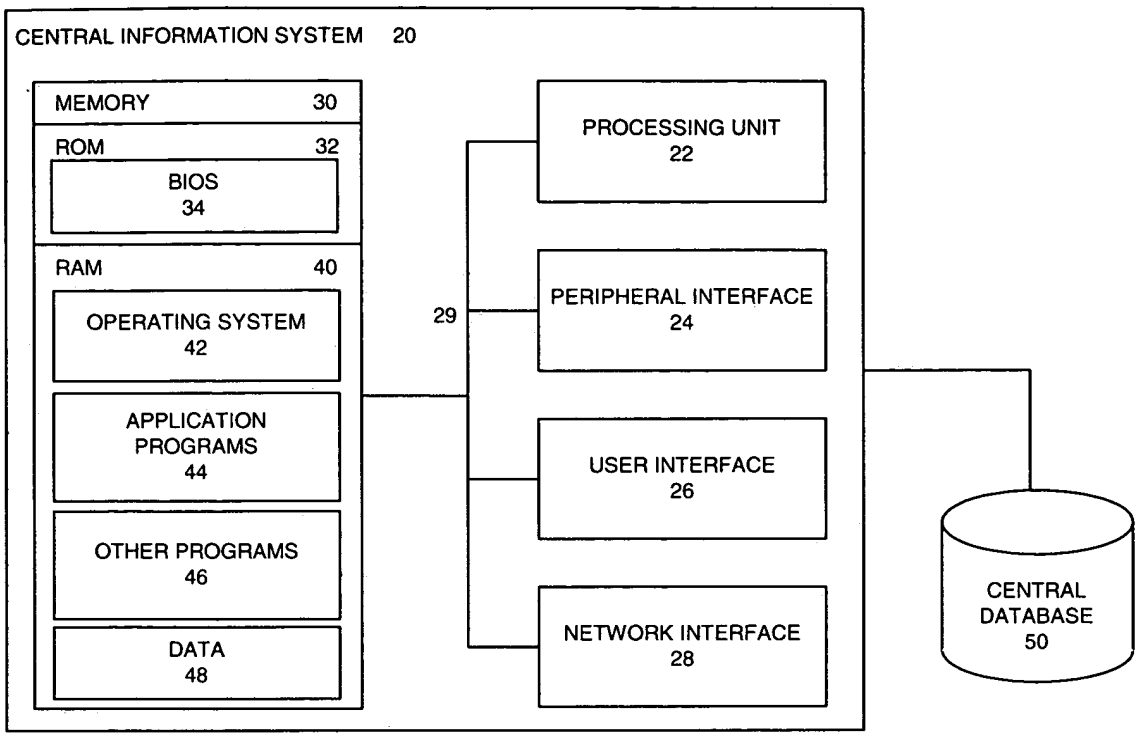
CENTRAL INFORMATION SYSTEM 20
MEMORY 30
ROM 32
BIOS 34
RAM 40
OPERATING SYSTEM 42
APPLICATION PROGRAMS 44
OTHER PROGRAMS 46
DATA 48
29
PROCESSING UNIT 22
PERIPHERAL INTERFACE 24
USER INTERFACE 26
NETWORK INTERFACE 28
CENTRAL DATABASE 50

FIG. 3

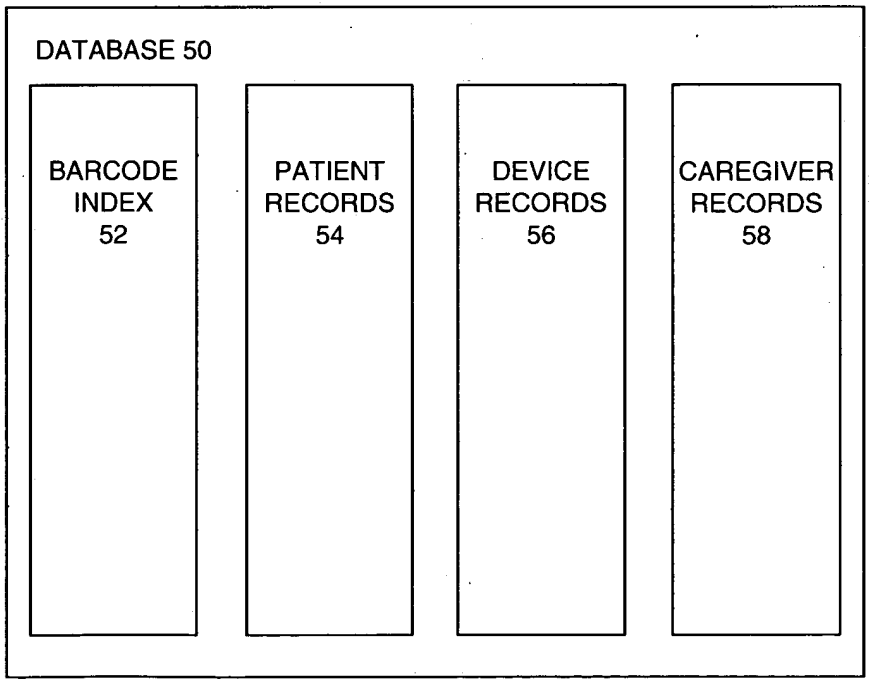
DATABASE 50
BARCODE INDEX 52
PATIENT RECORDS 54
DEVICE RECORDS 56
CAREGIVER RECORDS 58

FIG. 4

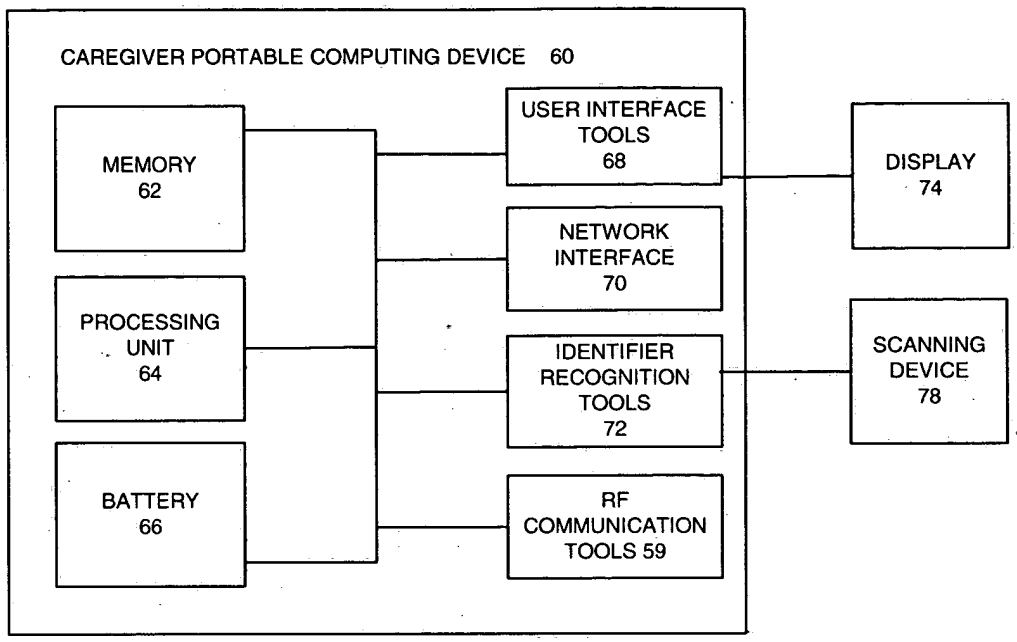
CAREGIVER PORTABLE COMPUTING DEVICE 60
MEMORY 62
PROCESSING UNIT 64
BATTERY 66
USER INTERFACE TOOLS 68
NETWORK INTERFACE 70
IDENTIFIER RECOGNITION TOOLS 72
RF COMMUNICATION TOOLS 59
DISPLAY 74
SCANNING DEVICE 78

FIG. 5

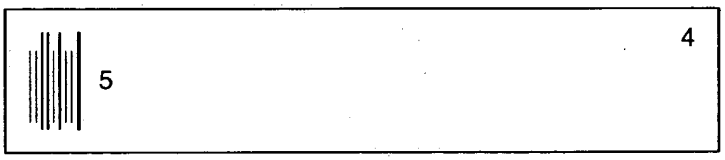
4
5

FIG. 6

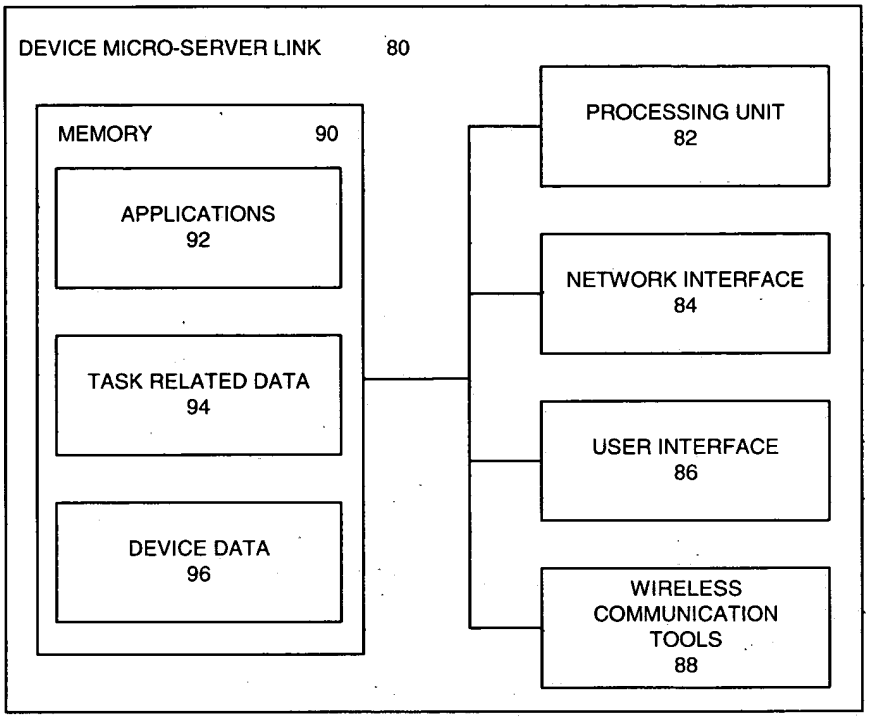
DEVICE MICRO-SERVER LINK
80
MEMORY
90
APPLICATIONS
92
TASK RELATED DATA
94
DEVICE DATA
96
PROCESSING UNIT
82
NETWORK INTERFACE
84
USER INTERFACE
86
WIRELESS
COMMUNICATION
TOOLS
88

FIG. 7

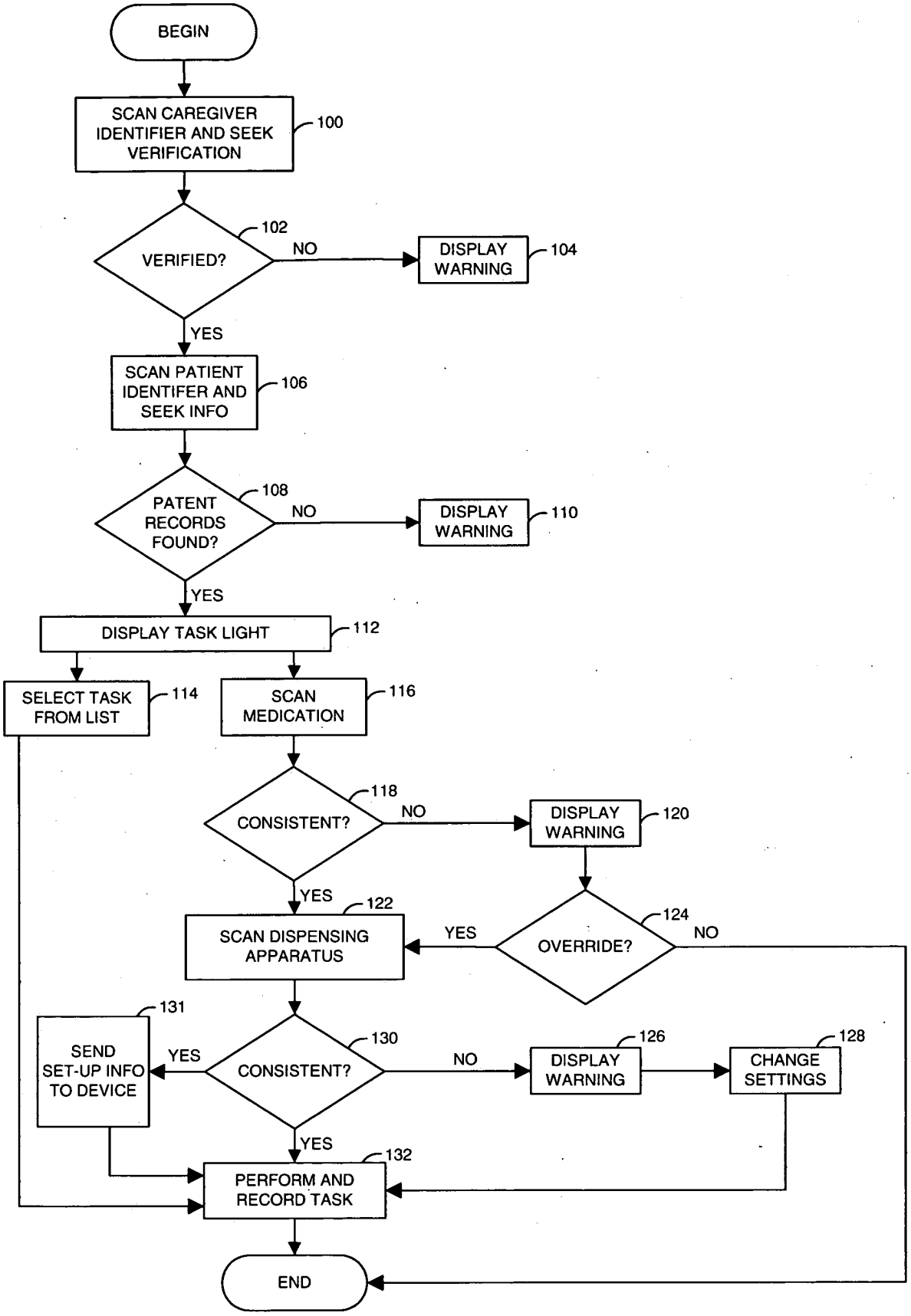
BEGIN
SCAN CAREGIVER IDENTIFIER AND SEEK VERIFICATION
100
VERIFIED?
102
NO
DISPLAY WARNING
104
YES
SCAN PATIENT IDENTIFER AND SEEK INFO
106
PATENT RECORDS FOUND?
108
NO
DISPLAY WARNING
110
YES
DISPLAY TASK LIGHT
112
SELECT TASK FROM LIST
114
SCAN MEDICATION
116
CONSISTENT?
118
NO
DISPLAY WARNING
120
YES
SCAN DISPENSING APPARATUS
122
YES
OVERRIDE?
124
NO
SEND SET-UP INFO TO DEVICE
131
YES
CONSISTENT?
130
NO
DISPLAY WARNING
126
CHANGE SETTINGS
128
YES
PERFORM AND RECORD TASK
132
END

FIG. 8

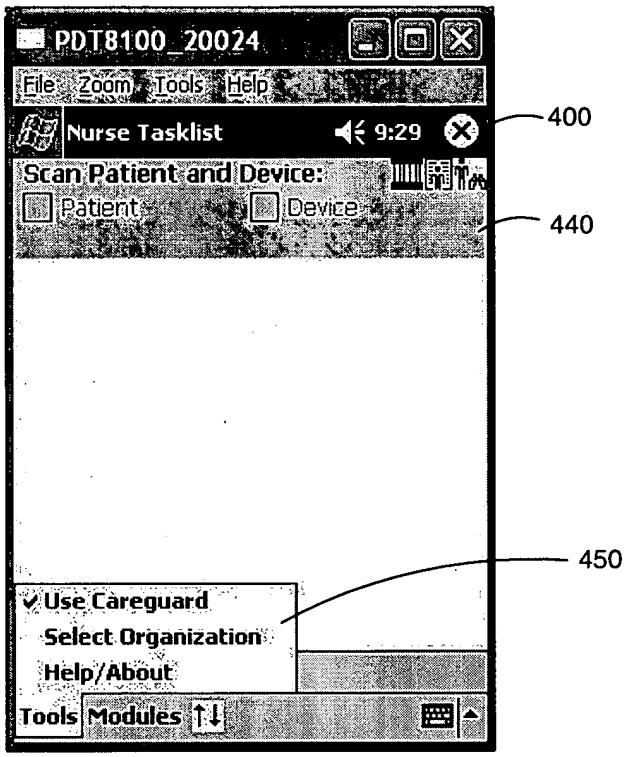
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:29
400
Scan Patient and Device:
Patient
Device
440
450
Use Careguard
Select Organization
Help/About
Tools
Modules

FIG. 9

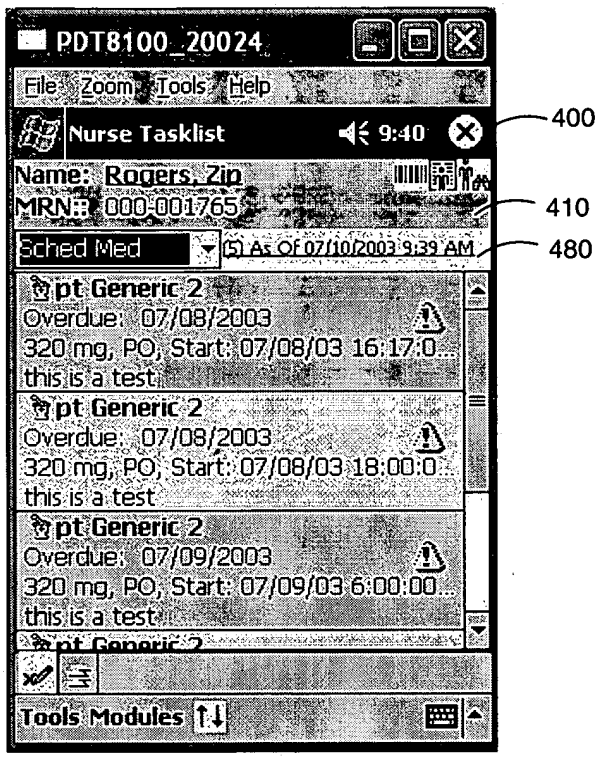
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:40
400
Name: Rogers, Zip
MRN: 000-001765
410
Sched Med
As Of 07/10/2003 9:39 AM
480
pt Generic 2
Overdue: 07/08/2003
320 mg, PO, Start: 07/08/03 16:17:0...
this is a test
pt Generic 2
Overdue: 07/08/2003
320 mg, PO, Start: 07/08/03 18:00:0
this is a test
pt Generic 2
Overdue: 07/09/2003
320 mg, PO, Start: 07/09/03 6:00:00...
this is a test
Tools Modules

FIG. 10

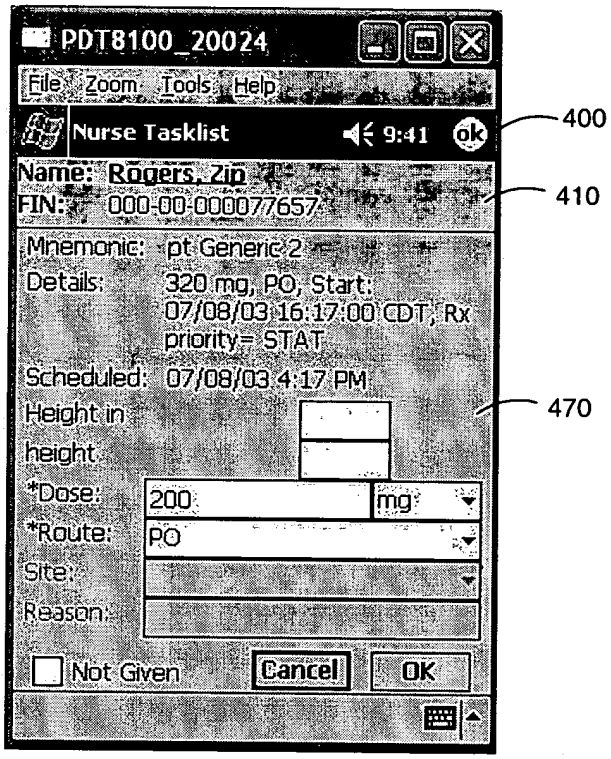
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:41
ok
400
Name: Rogers, Zip
FIN: 000-00-000077657
410
Mnemonic: pt Generic 2
Details: 320 mg, PO, Start: 07/08/03 16:17:00 CDT, Rx priority = STAT
Scheduled: 07/08/03 4:17 PM
Height in
height
470
*Dose: 200 mg
*Route: PO
Site:
Reason:
Not Given
Cancel
OK

FIG. 11

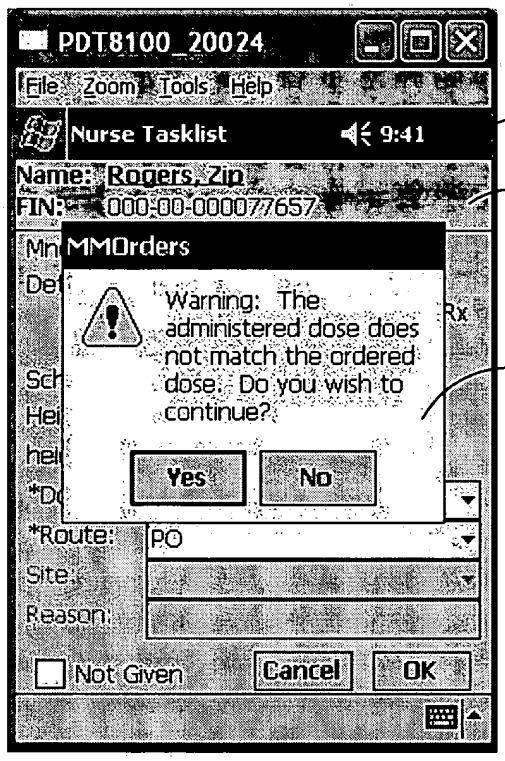
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:41
400
Name: Rogers, Zip
FIN: 000-00-00007657
410
MMOrders
Warning: The administered dose does not match the ordered dose. Do you wish to continue?
460
Yes
No
*Route:
PO
Site:
Reason:
Not Given
Cancel
OK

FIG. 12

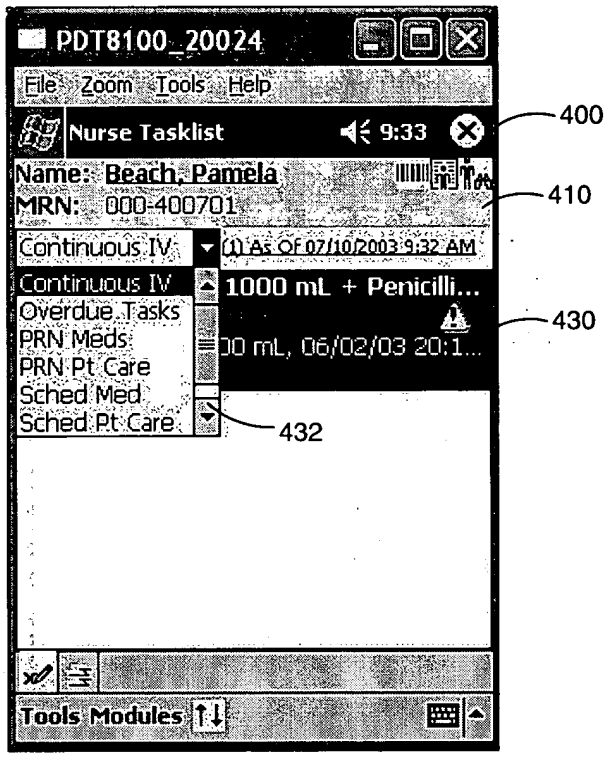
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:33
Name: Beach, Pamela
MRN: 000-400701
Continuous IV
(1) As Of 07/10/2003 9:32 AM
Continuous IV
Overdue Tasks
PRN Meds
PRN Pt Care
Sched Med
Sched Pt Care
1000 mL + Penicilli...
0 mL, 06/02/03 20:1...
Tools Modules
400
410
430
432

FIG. 13

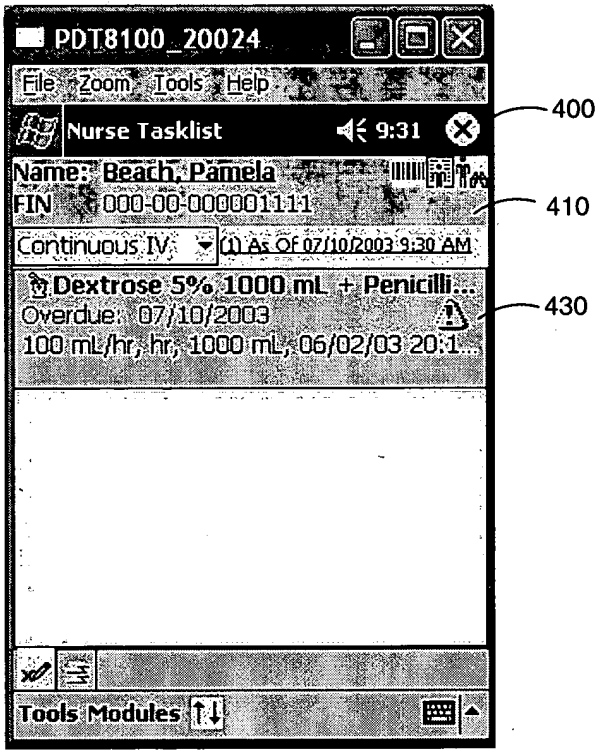
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:31
Name: Beach, Pamela
FIN 000-00-0000011111
Continuous IV
As Of 07/10/2003 9:30 AM
Dextrose 5% 1000 mL + Penicilli...
Overdue: 07/10/2003
100 mL/hr, hr, 1000 mL, 06/02/03 20:1...
Tools Modules
400
410
430

FIG. 14

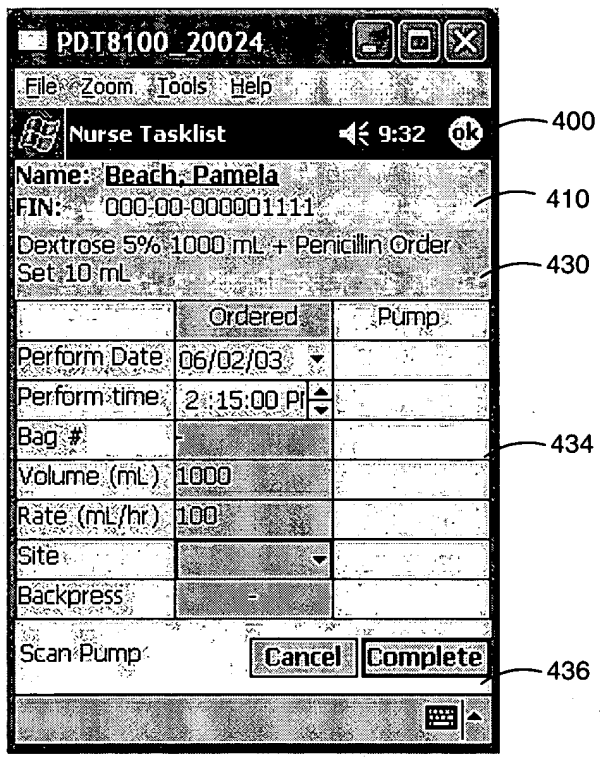
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:32
ok
Name: Beach, Pamela
FIN: 000-00-00000111
Dextrose 5% 1000 mL + Penicillin Order Set 10 mL
Ordered
Pump
Perform Date
06/02/03
Perform time
2 15:00 Pl
Bag #
Volume (mL)
1000
Rate (mL/hr)
100
Site
Backpress
Scan Pump
Cancel
Complete
400
410
430
434
436

FIG. 15

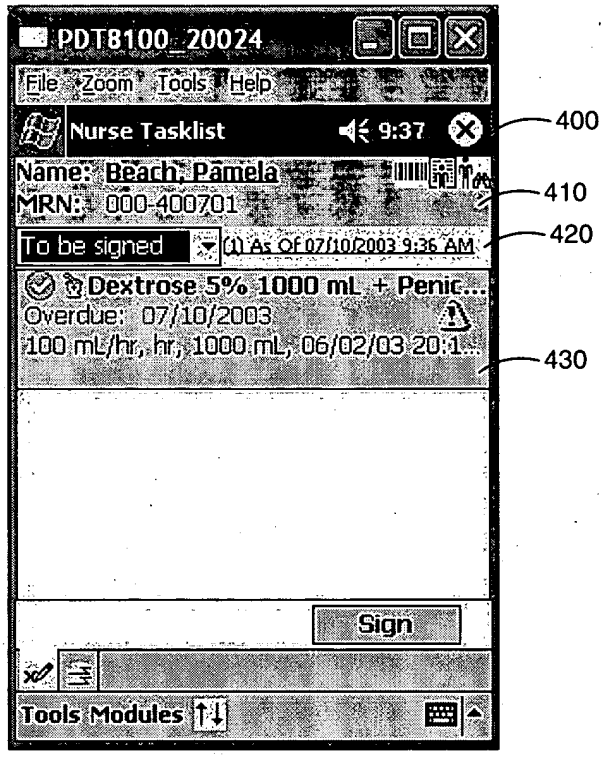
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist
9:37
400
Name: Beach, Pamela
MRN: 000-400701
410
To be signed
(1) As Of 07/10/2003 9:36 AM
420
Dextrose 5% 1000 mL + Penic...
Overdue: 07/10/2003
100 mL/hr, hr, 1000 mL, 06/02/03 20:1...
430
Sign
Tools Modules

FIG. 16

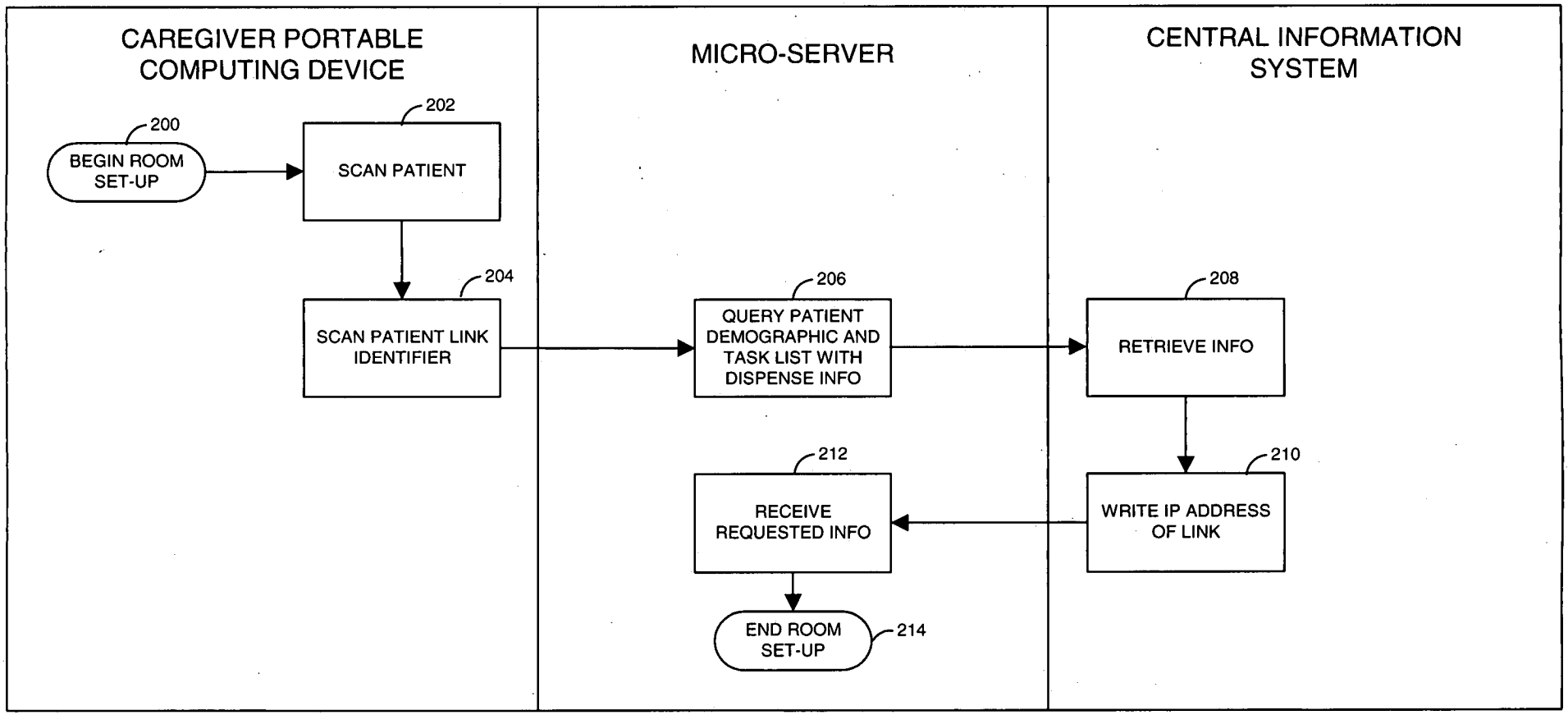
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
200
BEGIN ROOM SET-UP
202
SCAN PATIENT
204
SCAN PATIENT LINK IDENTIFIER
206
QUERY PATIENT DEMOGRAPHIC AND TASK LIST WITH DISPENSE INFO
208
RETRIEVE INFO
210
WRITE IP ADDRESS OF LINK
212
RECEIVE REQUESTED INFO
214
END ROOM SET-UP

FIG. 17

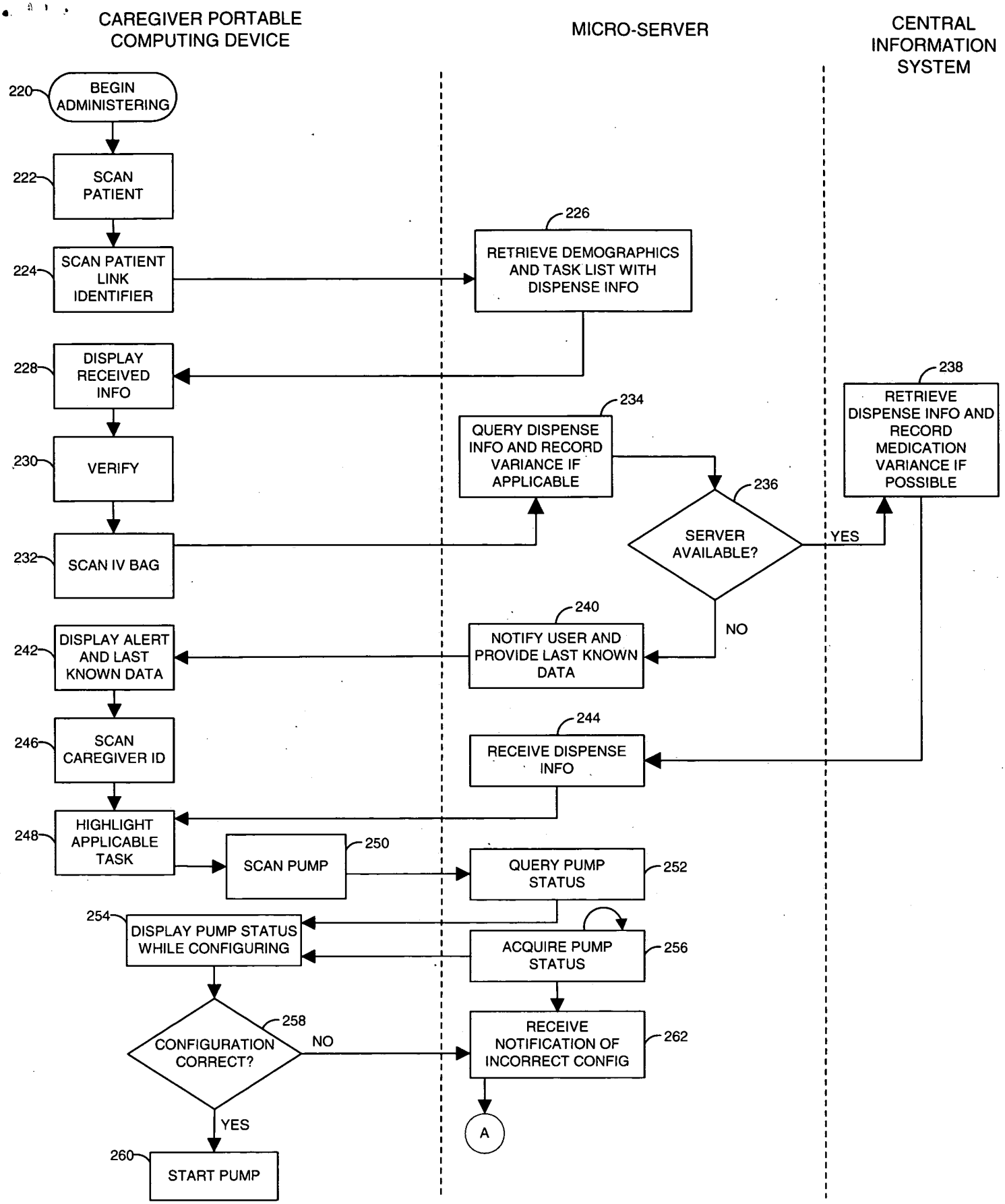
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
220
BEGIN ADMINISTERING
222
SCAN PATIENT
224
SCAN PATIENT LINK IDENTIFIER
226
RETRIEVE DEMOGRAPHICS AND TASK LIST WITH DISPENSE INFO
228
DISPLAY RECEIVED INFO
230
VERIFY
232
SCAN IV BAG
234
QUERY DISPENSE INFO AND RECORD VARIANCE IF APPLICABLE
236
SERVER AVAILABLE?
YES
NO
238
RETRIEVE DISPENSE INFO AND RECORD MEDICATION VARIANCE IF POSSIBLE
240
NOTIFY USER AND PROVIDE LAST KNOWN DATA
242
DISPLAY ALERT AND LAST KNOWN DATA
244
RECEIVE DISPENSE INFO
246
SCAN CAREGIVER ID
248
HIGHLIGHT APPLICABLE TASK
250
SCAN PUMP
252
QUERY PUMP STATUS
254
DISPLAY PUMP STATUS WHILE CONFIGURING
256
ACQUIRE PUMP STATUS
258
CONFIGURATION CORRECT?
NO
YES
262
RECEIVE NOTIFICATION OF INCORRECT CONFIG
A
260
START PUMP

FIG. 18A

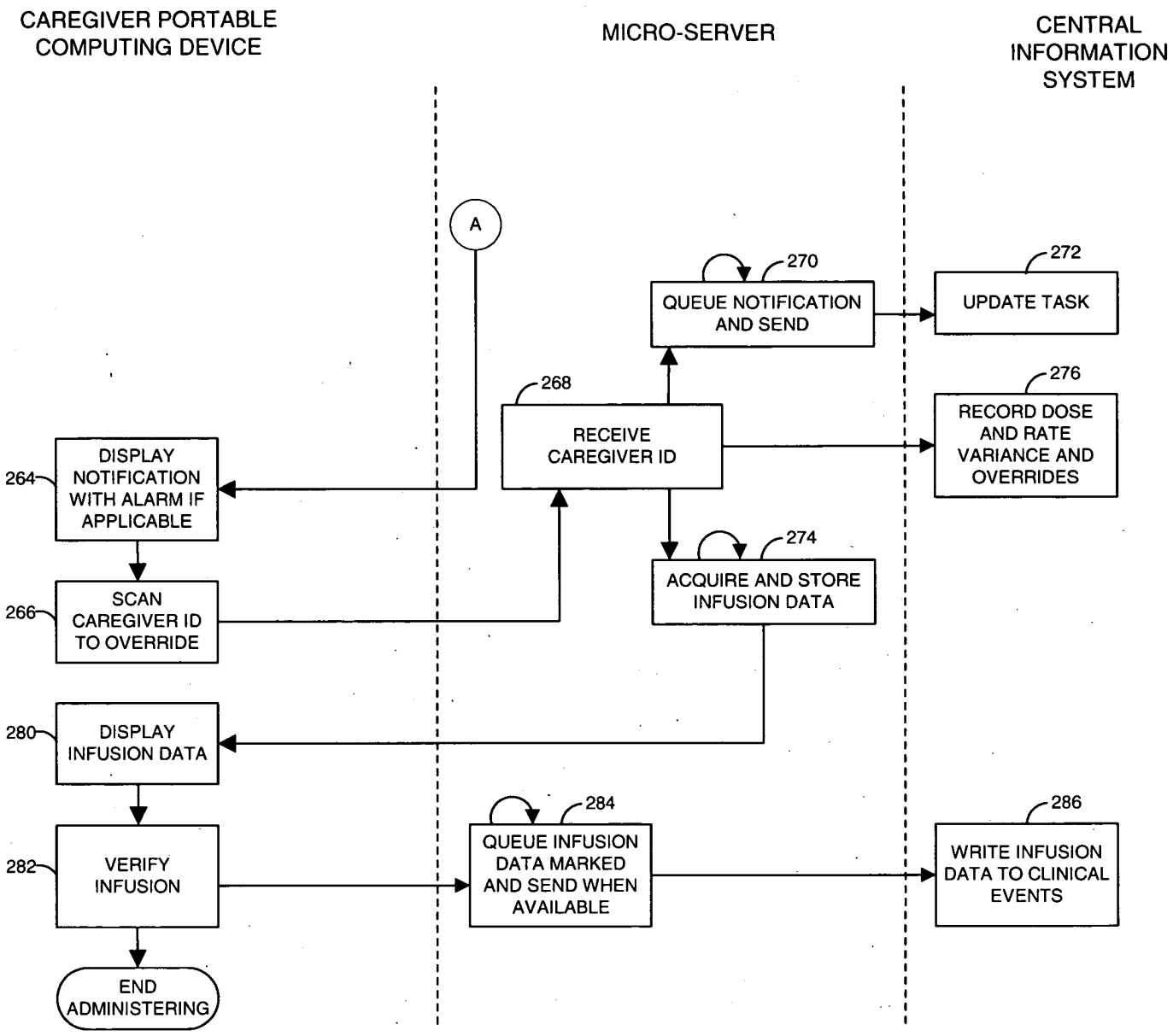
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
A
270
QUEUE NOTIFICATION AND SEND
272
UPDATE TASK
268
RECEIVE CAREGIVER ID
276
RECORD DOSE AND RATE VARIANCE AND OVERRIDES
264
DISPLAY NOTIFICATION WITH ALARM IF APPLICABLE
274
ACQUIRE AND STORE INFUSION DATA
266
SCAN CAREGIVER ID TO OVERRIDE
280
DISPLAY INFUSION DATA
284
QUEUE INFUSION DATA MARKED AND SEND WHEN AVAILABLE
286
WRITE INFUSION DATA TO CLINICAL EVENTS
282
VERIFY INFUSION
END ADMINISTERING

FIG. 18B

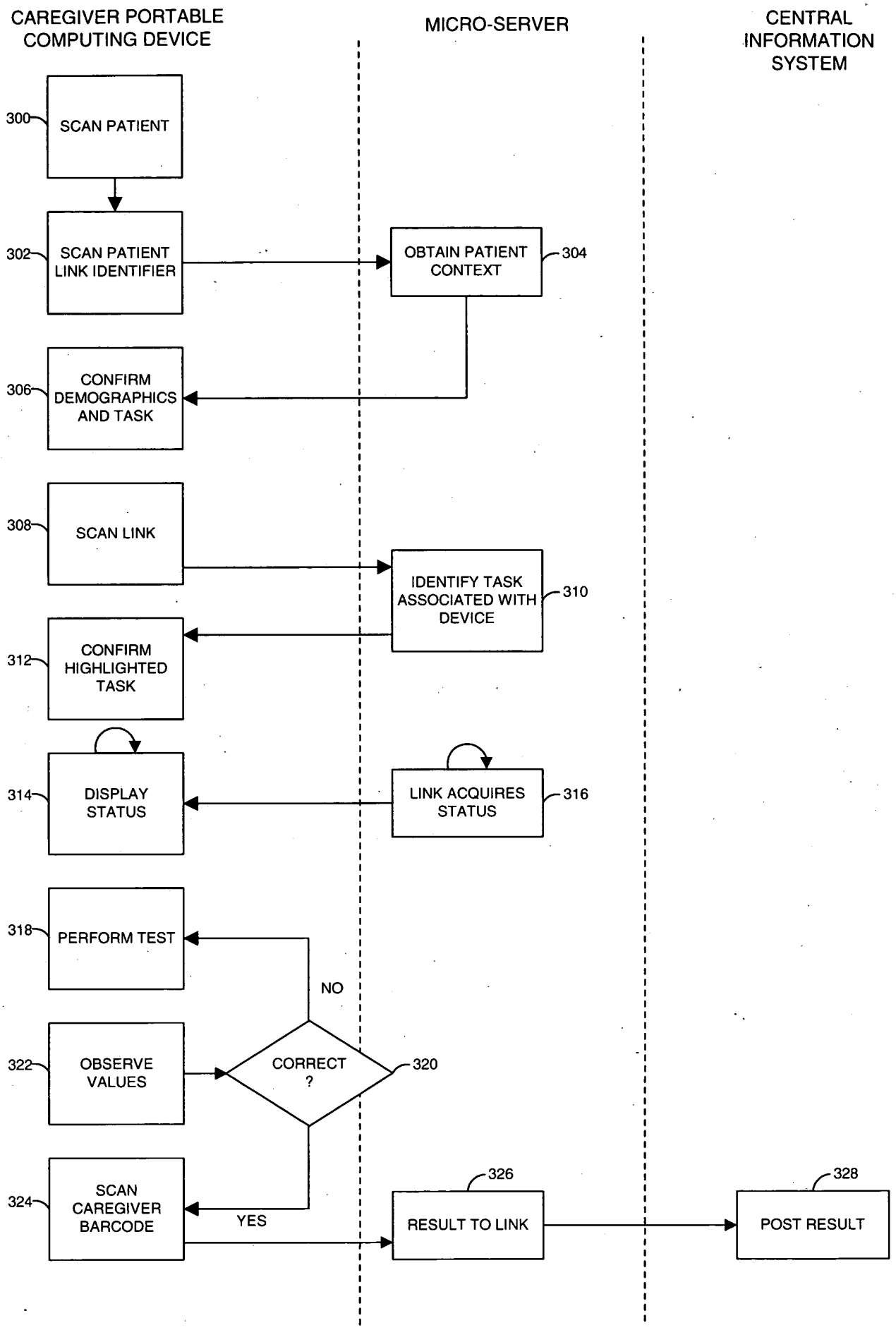
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
300
SCAN PATIENT
302
SCAN PATIENT LINK IDENTIFIER
OBTAIN PATIENT CONTEXT
304
306
CONFIRM DEMOGRAPHICS AND TASK
308
SCAN LINK
IDENTIFY TASK ASSOCIATED WITH DEVICE
310
312
CONFIRM HIGHLIGHTED TASK
314
DISPLAY STATUS
LINK ACQUIRES STATUS
316
318
PERFORM TEST
NO
322
OBSERVE VALUES
CORRECT ?
320
324
SCAN CAREGIVER BARCODE
YES
326
RESULT TO LINK
328
POST RESULT

FIG. 19